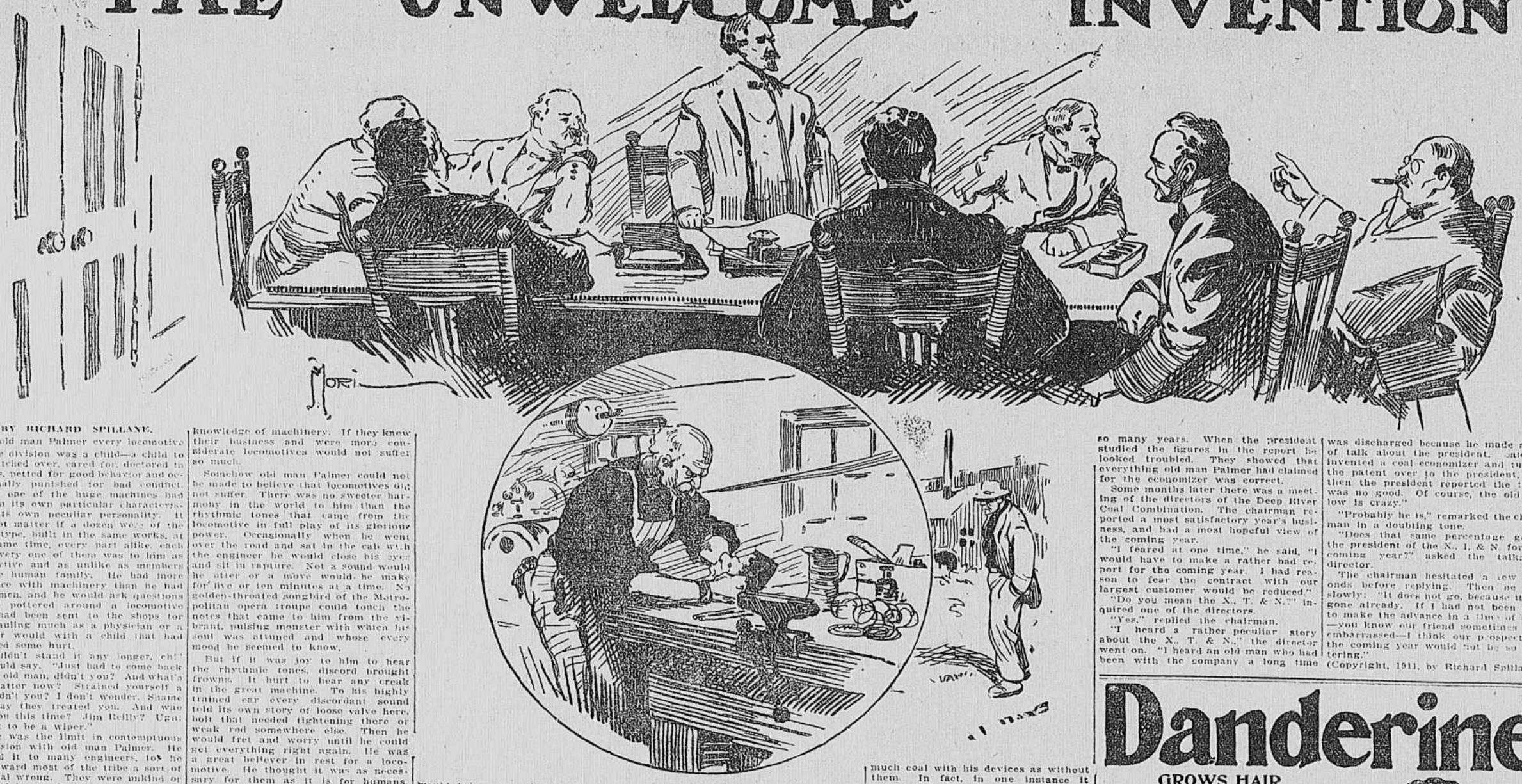
REAL ROMANCES OF THE BUSINESS WORLD

THE UNWELCOME INVENTION



BY RICHARD SPILLANE.

To old man Palmer every locomotive on the division was a child—a child to be watched over, cared for, doctored in illness, petted for good behavior and occasionally punished for bad conduct. Every one of the huge machines had to him its own particular characteristics, its own peculiar personality. It did not matter if a dozen were of the same type, built in the same works, at the same time, every part alike, each and every one of them was to him as distinctive and as unlike as members of the human family. He had more patience with machinery than he had with men, and he would ask questions as he pottered around a locomotive that had been sent to the shops for overhauling much as a physician or a mother would with a child that had suffered some hurt.

"Couldn't stand it any longer, eh!" he would say. "Just had to come back to the old man, didn't you? And what's the matter now? Strained yourself a bit, didn't you? I don't wonder. Shame the way they treated you. And who had you this time? Jim Reilly? Ugh! Not fit to be a wiper."

That was the limit in contemptuous expression with old man Palmer. He applied it to many engineers, for he felt toward most of the tribe a sort of personal wrong. They were unkind or neglectful or lacking in essential knowledge of machinery. If they knew their business and were more considerate locomotives would not suffer so much.

Somehow old man Palmer could not be made to believe that locomotives did not suffer. There was no sweeter harmony in the world to him than the rhythmic tones that came from the locomotive in full play of its glorious power. Occasionally when he went over the road and sat in the cab with the engineer he would close his eyes and sit in rapture. Not a sound would he utter or a move would he make for five or ten minutes at a time. No golden-throated songbird of the Metropolitan opera troupe could touch the notes that came to him from the vibrant, pulsing monster with which his soul was attuned and whose every mood he seemed to know.

But if it was joy to him to hear the rhythmic tones, discord brought frowns. It hurt to hear any creak in the great machine. To his highly trained ear every discordant sound told its own story of loose valve here, bolt that needed tightening there or weak rod somewhere else. Then he would fret and worry until he could get everything right again. He was a great believer in rest for a locomotive. He thought it was as necessary for them as it is for humans. Sometimes when the flood of traffic would bring every locomotive in use and when some of them would be kept in almost continuous service for weeks at a time the old man would descant upon the wickedness of such a thing. It was not right, it was not just, to overwork a machine any more than it was a man, he would declare, and he would not be altogether happy until the rush ended and he had an opportunity to get the ailing among his pets back in the shop.

Queer man was old Palmer. He had been with the road nearly fifty years when he worked out his invention. The road was not the big trunk line it is to-day when he first knew it. Instead of its thousands of miles of tracks, its many thousand cars, its hundreds of millions of dollars in stocks and bonds and its army of employes, it was a jerkwater bit of a road less than seventy-five miles long that wandered over the hills and valleys of Illinois. Its roadbed was a joke, its iron rails grotesquely light, and its total equipment consisted of three locomotives, six squeaky passenger cars and eighteen freight cars. The locomotives burned wood. Once a day a combination freight and passenger train went over the road.

To the mind of old man Palmer, the wonderful locomotives with which the road is equipped to-day is magnificent, but occasionally, when he talked in the roundhouse or the shop of old times, he would tell some marvelous tales of those woodburners of the early sixties. He had come out of the war in '63, wounded, and had taken a job as fireman on the N., T. & N. It was five years before he became an engineer, and it was ten before he was put in the shops. The road had spread, grown and branched, but he had remained on the old main line. There were days of financial tragedy to the road, when a Wall Street wrecker, into whose hands it had fallen, sapped it of its strength. There was a long period of bankruptcy, when the visit of the pay car was none too regular, and there was a long period of privation and the most rigid economy, when the employes and the patrons of the road had to pay the penalty for the crimes of that Wall Street buccaneer. Then, gradually, prosperity came to the property, and with it an amazing outreaching of its tracks and a no less amazing increase in its traffic.

Through all its transitions Palmer remained faithful. Presidents came and presidents went; old interests sold out and new ones came into control, but it was all the same to him. He worked away in the shop, his life bounded by the Illinois Division, and all his energies centred on his daily tasks. He knew the soul of the woodburner, he knew the soul of the high-wheeled coal-burning flyers of light weight that succeeded them, and he knew the soul of the monsters that are in service to-day. Possibly, if he was more selfish and had a keener sense of his own worth, he might have attained a good position; but he was content to jog along. His needs were simple. His wife had died many years ago, and he had no children to look after. That may account for the paternalistic care with which he regarded the locomotives he had to restore to good condition. Year after year he plodded along. The silver came into his hair, and his once erect form began to bend under the weight of his years. His tasks were made lighter without his knowledge. Younger men relieved him of all heavy work, and he was left to do practically what he pleased. He was a privileged character.

If old man Palmer had had as much theoretical knowledge of mechanics as he had practical he might have become a great inventor. He liked to tinker with the things that bothered the men about the shop, and there are dozens of devices in use there now that he rigged up to simplify the work. Some of them are quite ingenious, but none of them is of enough importance to warrant special notice. There was a time when he thought he had unusual ability in this line, and possibly he had some ambitious dreams. That was long ago, however, and when the wonderful lathes and the multitudes of other machines that came to the shop disclosed their marvels to him he did not have much opinion of his own ideas. What he saw before him was so far beyond anything he could conceive in that field that he smiled at his own presumption.

It was after old man Palmer had celebrated his fortieth year of service with the road that he was left to do as he pleased. The boss had no idea he would not earn his money, for the old man could not be content unless he was doing something, and in a railroad shop there always is plenty to do. It took a year or more for the old man to break away from his accustomed work. He knew each locomotive so intimately, knew the forms of crankiness of this one and the weaknesses of that one so well that he resented any other man taking them in hand. But gradually he began to realize that some of the other men, some of the younger ones especially, had as keen an ear, as fine a sympathy with and as full a knowledge of the great machines as himself. It was not pleasant to discover this, for the old dislike to have their illusions dispelled as much as the young, but it had to come. Once he appreciated that others could care for his charges properly, he began to give more time and attention to a problem that has puzzled the brains of many men.

One of the wastes of a railroad is in fuel. A locomotive consumes a great quantity of coal. A comparatively small amount of the energy that comes from the coal is utilized. Far more goes up the smoke stack than goes to heat the boilers and produce the steam that means power.

To all men of inventive bent waste is a bane. Economy to them is a sort of religion. In the gay days when he pitched wood into the firebox of those old X., T. & N. locomotives that waste probably was brought to Palmer's attention vividly because he had to bend his back so often, and because his hands were torn by so many splinters. It probably appealed to him, too, later, when the road introduced its first coal-burning engines, because it was not so easy to make steam then as it is now, for they got much less energy out of coal in those days than they do now. It always did appeal to him since he had been in the shop, however. As the old man became weaned away from his former tasks, and had more and more time to give to any subject that suited his fancy he began to study the coal problem more earnestly than he ever did before. He went at it slowly, methodically, as a man of steady habits will.

Much of the ground that he traversed in trying to find a way out of the difficulty had been gone over years before by other men. Once or twice he thought he was making headway, and he rigged up devices in various locomotives to test his ideas, but they proved abortive. The locomotives burned just as much coal with his devices as without them. In fact, in one instance it seemed they burned more, and if he had not been an unusually good natured old man he would have lost his temper at the chaffing to which he was subjected, for he had been indiscreet enough to declare he had solved the problem.

That failure chastened but did not subdue the old man. He was discouraged for a time, perhaps, and less inclined to talk with the men, but he was none the less earnest in studing the subject. Like the plodder he always had been he started all over again, picking his way along the road just as if it were not familiar to him. When he had reached a certain point he seemed unable to get any further. There he stuck for many months. He experimented with anything and everything his mind suggested as likely to prove of value, and at last struck one device that showed promise of good results. Patiently he worked with this, installing it first in one locomotive and then in another, measuring the amount of coal used with it and without it and letting no one know the result of his calculations. Then he experimented with the device in various forms, making it larger in some instances and smaller in others and keeping tabulations of the coal consumption in every instance. He meant to make no mistake this time and to do no boasting.

One day old man Palmer surprised the boss by asking for a leave of absence.

"Why, Pop, what's coming over you?" exclaimed the boss. "Leave of absence! Where do you want to go?"

"Just away on a little trip," replied the old man.

"How long will you be gone?" asked the boss.

"That depends," answered the old man.

The boss laughed, and pokingly gave some advice to the old man about being wary of the allurements of the city, for the old man told him where he intended going. He also, at the old man's request, gave him a letter of introduction to the general manager.

Old man Palmer went to the city and spent a few minutes with the general manager, who was glad to see him and complimented him on his long service and congratulated him on his good health. Then he asked the old man what he could do for him.

"If you'd be so good," said the old fellow, "I'd like you to introduce me to the president. I want to see him privately."

"Why, certainly," said the general manager. "Come right in."

The general manager escorted old man Palmer into the president's office and left him there, after explaining in a few graceful sentences how the old man had been in the company's employ for nearly fifty years.

When the general manager had departed the old man, in a halting and embarrassed way, started his story. He told how he had been working for years on the great problem, and how he now was satisfied he had made decided progress toward solving it. He wanted the president to take it up and install it in all the locomotives on the great system. He showed all the tabulations he had made, and explained how much of a saving in coal it meant per locomotive.

The president had heard so much at various times of coal economizers that he was mildly skeptical, but he did not say so or let the old man know it. He asked to see the patent papers, and was surprised when Palmer told him he had not patented his device.

"It belongs to the company," said the old man. "You patent it. I worked it out on the company's time and I got paid for the time I put in on it. And I never could have done anything with it if I hadn't the chance to try it out on our engines."

The president said some pleasant things to the old man, and after telling him he would make proper trials of the economizer, dismissed him.

Within two weeks the president had a report regarding the economizer. The trials on which the report was based were made far away from the division on which old man Palmer had worked so many years. When the president studied the figures in the report he looked troubled. They showed that everything old man Palmer had claimed for the economizer was correct.

Some months later there was a meeting of the directors of the Deep River Coal Combination. The chairman reported a most satisfactory year's business, and had a most hopeful view of the coming year.

"I feared at one time," he said, "I would have to make a rather bad report for the coming year. I had reason to fear the contract with our largest customer would be reduced."

"Do you mean the X., T. & N.?" inquired one of the directors.

"Yes," replied the chairman.

"I heard a rather peculiar story about the X., T. & N.," the director went on. "I heard an old man who had been with the company a long time was discharged because he made a lot of talk about the president, said he invented a coal economizer and turned the patent over to the president, and then the president reported the thing was no good. Of course, the old fellow is crazy."

"Probably he is," remarked the chairman in a doubting tone.

"Does that same percentage go to the president of the X., T. & N. for the coming year?" asked the talkative director.

The chairman hesitated a few seconds before replying. Then he said slowly: "It does not go, because it has gone already. If I had not been able to make the advance in a time of need—you know our friend sometimes gets embarrassed—I think our prospect for the coming year would not be so flattering."

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